

CLAIMS

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2
3 1. A method including steps of
4 sending a text-based message to a hand-held device using an SMS tech-
5 nique, the text-based message including information from which rights information is
6 derivable by a system including a playback device; and
7 enforcing that rights information on the system in response to that text-
8 based message;
9 wherein the steps of sending include a transport technique not including
10 the playback device.

11
12 2. A method as in claim 1, including steps of ensuring that only author-
13 ized content is executed or presented by the playback device or the secure processor, or
14 by both in combination or conjunction.

15
16 3. A method as in claim 1, including steps of sending content to the play-
17 back device using a communication link not used by the steps of sending a text-based
18 message.

19
20 4. A method as in claim 1, wherein the steps of enforcing are performed at
21 least in part by the playback device or a secure processor coupled thereto.

1 5. A method as in claim 1, wherein the steps of enforcing are performed
2 by mandatory security hardware or mandatory security software.

3 6. A method as in claim 1, wherein the steps of enforcing include steps of
4 decrypting at least some information derivable from the text-based message.

5
6 7. A method as in claim 1, wherein the steps of enforcing includes using a
7 key derived from the message for decrypting a license or content.

8
9 8. A method as in claim 1, wherein the steps of enforcing includes apply-
10 ing a key derived from the message to complete a license in which execution rights are
11 defined.

12
13 9. A method as in claim 1, wherein the steps of enforcing includes apply-
14 ing a key derived from the message as an authentication code.

15
16 10. A method as in claim 1, wherein the message is composed on the SMS.

17
18 11. A method as in claim 1, wherein the message is manually entered into
19 the playback device.

20
21 12. A method as in claim 11, wherein the playback device processes the
22 message and produces a licensing message suitable to be sent by the handheld device.

1
2 13. A method as in claim 12, wherein the licensing message is encrypted
3 or cryptographically authenticated by the handheld device and sent to a license server.
4

5 14. A method as in claim 1, wherein the steps of enforcing include steps of
6 using a decryption key available to the by the playback device or a secure processor
7 coupled thereto.
8

9 15. A method as in claim 1, wherein the steps of sending a text-based
10 message include steps of sending a first message from a hand-held device using an SMS
11 technique to a license server;

12 sending a second message from the license server to the hand-held device,
13 the second message including human-readable characters; and

14 manually entering those characters to an input element coupled to the
15 playback device.
16

17 16. A method as in claim 1, wherein the system includes a closed content
18 distribution system capable of delivering content to the playback device using a second
19 transport technique not including that used by the steps of sending a text-based mes-
20 sage.
21

1 17. A method as in claim 1, wherein the system includes a closed content
2 distribution system capable of ensuring that only authorized content is presented by the
3 playback device or executed by the secure processor.

4
5 18. A method as in claim 1, wherein the text-based message includes an
6 authentication code; and

7 the system includes a secure processor capable of authenticating content
8 coupled to the playback device in response to that authentication code.

9
10 19. A method as in claim 1, including steps of authenticating the right in-
11 formation by the playback device or a secure processor coupled thereto.

12
13 20. A method as in claim 19, wherein the steps of authenticating include
14 steps of decrypting at least some information derivable from that text-based message.

15
16 21. A method as in claim 19, wherein the steps of authenticating include
17 steps of using a decryption key available to the by the playback device or a secure proc-
18 essor coupled thereto.

19
20 22. A method as in claim 1, including steps of
21 decoding those characters; and
22 deriving rights information from at least some of those characters.

1
2 23. A method as in claim 22, wherein the steps of deriving are performed
3 at least in part by the playback device or a secure processor coupled thereto.
4

5 24. A method as in claim 22, wherein those characters include at least
6 some information encrypted using a key available to the playback device or a secure
7 processor coupled thereto.
8

9 25. A method including steps of
10 sending a text-based message to a hand-held device using an SMS tech-
11 nique, the text-based message including information from which rights information is
12 derivable by a system including a playback device including at least one of rights-
13 enforcing hardware, rights-enforcing software;
14 enforcing that rights information on the system using the rights-enforcing
15 hardware or rights-enforcing software, in response to that text-based message.
16

17 26. A method as in claim 25, including steps of authenticating that rights
18 information using the rights-enforcing hardware or rights-enforcing software.
19

20 27. A method including steps of
21 sending a text-based message to a hand-held device using an SMS tech-
22 nique, the text-based message including information from which rights information is

derivable by a system including a secure processor and a playback device under control of that secure processor;

authenticating that rights information at the secure processor in response to mandatory security software executed by the secure processor; and enforcing that rights information on the system in response to that text-based message.

28. A method as in claim 27, including steps of sending content to the playback device using a communication link not used by the steps of sending a text-based message.

29. A method as in claim 27, wherein the steps of sending a text-based message include a transport technique not including the playback device.

30. A method as in claim 27, wherein the steps of sending a text-based message include steps of

sending a first message from a hand-held device using an SMS technique to a license server;

sending a second message from the license server to the hand-held device, the second message including human-readable characters; and

entering those characters to an input element coupled to the secure processor.

1 31. A method as in claim 27, wherein the system includes a closed content
2 distribution system capable of delivering content to the playback device using a second
3 transport technique not including that used by the steps of sending a text-based mes-
4 sage, the closed content distribution system including the mandatory security software
5 being responsive to a private key in a public-key cryptosystem.

6
7 32. A method as in claim 27, wherein the system includes a closed content
8 distribution system capable of ensuring that only authorized content is presented by the
9 playback device or executed by the secure processor.

10
11 33. A method as in claim 27, wherein
12 the text-based message includes an authentication code; and
13 the system includes a secure processor capable of authenticating content
14 coupled to the playback device in response to that authentication code.

15
16 34. A method including steps of
17 sending a text-based message to a hand-held device using an SMS tech-
18 nique, the text-based message including information from which rights information is
19 derivable by a system including a playback device under control of a secure processor;
20 enforcing that rights information at the secure processor; and
21 at least one of the steps of

1 (A) decrypting data by the secure processor in response to a secret key
2 and without exposing that secret key, and

3 (B) authenticating that rights information in response to mandatory secu-
4 rity software executed by the secure processor.

5
6 35. A method including steps of
7 sending a text-based message to a hand-held device using an SMS tech-
8 nique, the text-based message including information from which rights information is
9 derivable by a system including a playback device under control of a secure processor;
10 and

11 enforcing that rights information at the secure processor;
12 wherein the steps of enforcing that rights information include one or more
13 of the steps of

14 (A) the secure processor receiving a decryption key for content delivered
15 to the playback device, the decryption key being itself encrypted using a private key
16 available only to the secure processor,

17 (B) the secure processor authenticating that rights information in response
18 to a digital signature or secure hash thereof,

19 (C) the secure processor receiving a shared key for rights information de-
20 livered to the secure processor, and the secure processor authenticating that rights in-
21 formation in response to that shared key, and

1 (D) the secure processor receiving a shared key for content delivered to
2 the playback device, and the secure processor authenticating that content in response to
3 that shared key.

4
5 36. A method including steps of delivering license information in a closed
6 content distribution system, the closed content distribution system including a playback
7 device and a secure processor, the steps of delivering including a communication link
8 not including the playback device or secure processor, the communication link includ-
9 ing a short text-messaging system;

10 ensuring that only authorized content is executed or presented by the
11 playback device or the secure processor, or by both in combination or conjunction; and

12 ensuring that rights information derivable from the license information is
13 enforced by the playback device or the secure processor, or by both in combination or
14 conjunction.

15
16 37. A method as in claim 36, including steps of authenticating the license
17 information by the playback device or the secure processor, or by both in combination
18 or conjunction.

19
20 38. A method as in claim 36, including steps of determining in response to
21 the rights information whether the user is authorized to execute or present the selected
22 content.

1
2 39. A method as in claim 36, including steps of encoding the license in-
3 formation using a digital signature, secure hash, or shared secret; and

4 authenticating the license information by the playback device or the se-
5 cure processor, or by both in combination or conjunction, in response to the digital sig-
6 nature, secure hash, or shared secret.

7
8 40. A method as in claim 36, including steps of receiving content at the
9 playback device.

10
11 41. A method as in claim 36, wherein at least a portion of the content is
12 included on physical media transported to the playback device or secure processor.

13
14 42. A method as in claim 36, wherein at least a portion of the content is
15 present at the playback device or secure processor before the steps of delivering license
16 information.

17
18 43. A method as in claim 36, wherein the communication link includes a
19 cellular telephone.

1 44. A method as in claim 36, wherein the content can be executed or in-
2 terpreted by the playback device or the secure processor, or by both in combination or
3 conjunction.

4
5 45. A method as in claim 36, wherein the content can be presented in a
6 human-sensible form by the playback device or the secure processor, or by both in
7 combination or conjunction.

8
9 46. A method as in claim 36, wherein the secure processor includes a
10 computing device capable of enforcing mandatory execution of selected security soft-
11 ware.

12
13 47. A method as in claim 36, wherein the secure processor includes a
14 computing device capable of general purpose processing.

15
16 48. A method as in claim 36, wherein the steps of delivering include steps
17 of sending a text-based message to a hand-held device using an SMS technique, the
18 text-based message including information from which rights information is derivable.

19
20 49. A method as in claim 36, wherein the steps of ensuring include steps
21 of
22 decoding the license information;

1 generating at least a portion of the rights information in response to the
2 steps of decoding; and
3 enforcing the rights information.
4

5 50. A method as in claim 36, including steps of performing a commercial
6 transaction concurrently with communication between the license server and the user.
7

8 51. A method as in claim 50, wherein the steps of performing a commer-
9 cial transaction include steps of receiving information at the license server sufficient to
10 allow that license server to effect a purchase transaction by the user.
11

12 52. A method as in claim 50, wherein the steps of performing a commer-
13 cial transaction include steps of receiving proof of purchase at the license server of a li-
14 cense by the user.
15

16 53. A method as in claim 36, including steps of performing mandatory se-
17 curity software by the secure processor.
18

19 54. A method as in claim 53, wherein the steps of performing mandatory
20 security software include one or more of:
21 authenticating at least one of: a specific content element, a specific play-
22 back device or secure processor, a specific user;

1 enforcing comparison of an identity associated with the playback device
2 with a tamper-proof identity available to the playback device or the secure processor, or
3 to both in combination or conjunction;

4 enforcing comparison of rights information with an identity of selected
5 content available to the playback device or the secure processor, or to both in combina-
6 tion or conjunction;

7 enforcing computation of the secret key (using its private key and server
8 public key) and decryption of the identities; and

9 enforcing verification of a signature by the license server.

10
11 55. A method as in claim 36, wherein the steps of delivering include steps
12 of
13 delivering a code from a license server to a user; and
14 manually communicating the code from the user to the playback device or
15 the secure processor.

16
17 56. A method as in claim 55, including steps of deriving license informa-
18 tion from the code.

19
20 57. A method as in claim 55, including steps of decrypting content in re-
21 sponse to the code.

1 58. A method as in claim 55, wherein the code includes a human-readable
2 alphabetic, alphanumeric, numeric, or other character string.

3 59. A method as in claim 55, wherein the code includes a representation
4 of at least a portion of a license message.

5
6 60. A method as in claim 55, wherein the steps of communicating the code
7 include a human input device.

8
9 61. A method as in claim 55, wherein the steps of communicating the code
10 include an input technique not part of the closed distribution system.

11
12 62. A method as in claim 55, wherein the steps of communicating the code
13 include an SMS protocol.

14
15 63. A method as in claim 55, wherein the steps of communicating the code
16 include a text messaging protocol.

17
18 64. A method as in claim 55, wherein the code includes a representation
19 of a content decryption key.

20
21 65. A method as in claim 64, wherein the closed distribution system in-
22 cludes a public-key cryptosystem; and

1 the content decryption key includes a decryption key privately associated
2 with the content, encrypted by an encryption key publicly associated with a specific
3 playback device.

4
5 66. A method as in claim 55, wherein the code includes a representation
6 of an identifier of one or more of: a specific content element, a specific playback device
7 or secure processor, and a specific user.

8
9 67. A method as in claim 66, including steps of authenticating the code,
10 the steps of authenticating including one or more of:

11 determining if the code is digitally signed by a license server; and
12 determining if the code is encrypted by a key known commonly to both
13 the license server and the specific user.

14
15 68. A method as in claim 66, including steps of authenticating the code,
16 the steps of authenticating including one or more of:

17 determining if the code is digitally signed by a license server; and
18 determining if the code is encrypted by a key known commonly to both
19 the license server and the specific playback device or secure processor, or both in com-
20 bination or conjunction.

21
22 69. Apparatus including a closed content distribution system including

1 a playback device and a secure processor;

2 a communication link not including the playback device or secure proces-
3 sor;

4 a license server capable of being coupled to the communication link;

5 wherein the playback device or the secure processor, or both in combina-
6 tion or conjunction, includes mandatory security software.

7 70. Apparatus as in claim 69, wherein at least a portion of the content is
8 included on physical media transported to the playback device or secure processor.

9
10 71. Apparatus as in claim 69, wherein the communication link includes a
11 cellular telephone.

12
13 72. Apparatus as in claim 69, wherein the mandatory security software
14 includes instructions authenticating the license information.

15
16 73. Apparatus as in claim 69, wherein the mandatory security software
17 includes instructions determining in response to the rights information whether the
18 user is authorized to execute or present the selected content.

19
20 74. Apparatus as in claim 69, wherein the mandatory security software
21 includes instructions of

1 encoding the license information using a digital signature, secure hash, or
2 shared secret; and

3 authenticating the license information by the playback device or the se-
4 cure processor, or by both in combination or conjunction, in response to the digital sig-
5 nature, secure hash, or shared secret.

6
7 75. Apparatus as in claim 69, wherein
8 the mandatory security software includes instructions ensuring that only
9 authorized content is executed or presented by playback device or the secure processor,
10 or both in combination or conjunction; and

11 rights information derivable from the license information is enforced by
12 the playback device or the secure processor, or by both in combination or conjunction.

13
14 76. Apparatus as in claim 69, wherein the mandatory security software
15 includes one or more of:

16 instructions authenticating at least one of: a specific content element, a
17 specific playback device or secure processor, and a specific user;

18 instructions enforcing comparison of an identity associated with the play-
19 back device with a tamper-proof identity available to the playback device or the secure
20 processor, or to both in combination or conjunction;

1 instructions enforcing comparison of rights information with an identity
2 of selected content available to the playback device or the secure processor, or to both in
3 combination or conjunction;

4 instructions enforcing computation of the secret key (using its private key
5 and server public key) and decryption of the identities; and

6 instructions enforcing verification of a signature by the license server.
7

8 77. Apparatus as in claim 69, wherein the secure processor includes a
9 computing device capable of general purpose processing.
10

11 78. Apparatus as in claim 69, including a code delivered from a license
12 server to a user, the code being communicated from the user to the playback device or
13 the secure processor.
14

15 79. Apparatus as in claim 78, including a content decryption key embed-
16 ded in the code.
17

18 80. Apparatus as in claim 78, including a human input device coupled to
19 the playback device or the secure processor.
20

21 81. Apparatus as in claim 78, including license information embedded in
22 the code.

1
2 82. Apparatus as in claim 78, including an SMS protocol message.

3
4 83. Apparatus as in claim 78, including a text messaging protocol mes-
5 sage.

6
7 84. Apparatus as in claim 78, wherein the code includes a human-
8 readable alphabetic, alphanumeric, numeric, or other character string.

9
10 85. Apparatus as in claim 78, wherein the code includes a representation
11 of at least a portion of a license message.

12
13 86. Apparatus as in claim 78, wherein the code includes a representation
14 of a content decryption key.

15
16 87. Apparatus as in claim 86, wherein
17 the closed distribution system includes a public-key cryptosystem; and
18 the content decryption key includes a decryption key privately associated
19 with the content, encrypted by an encryption key publicly associated with a specific
20 playback device.

1 88. Apparatus as in claim 78, wherein the code includes a representation
2 of an identifier of one or more of: a specific content element, a specific playback device
3 or secure processor, and a specific user.

4
5 89. Apparatus as in claim 88, wherein the mandatory security software
6 includes instructions authenticating the code, the instructions including one or more of:
7 instructions determining if the code is digitally signed by a license server;
8 and
9 instructions determining if the code is encrypted by a key known com-
10 monly to both the license server and the specific user.

11
12 90. Apparatus as in claim 88, wherein the mandatory security software
13 includes instructions authenticating the code, the instructions including one or more of:
14 instructions determining if the code is digitally signed by a license server;
15 and
16 instructions determining if the code is encrypted by a key known com-
17 monly to both the license server and the specific playback device or secure processor, or
18 both in combination or conjunction.